

ALEKSEYEVA, T.A.; USIKOVA, L.G.; BEZUGLYY, V.D.

Polarographic determination of 2,4- 2,5-dimethylstyrene  
in polymers as pseudonitrosites. Zhur.anal.khim. 18 no.4:520-  
524 Ap '63. (MIRA 16:6)

1. All-Union Scientific-Research Institute of Monocrystals,  
Scintillating Materials and Highly Pure Chemical Substances,  
Kharkov.  
(Styrene) (Polymers) (Polarography)

PONOMAREV, Yu.P.; DMITRIYEVA, V.N.; BEZUGLYY, V.D.

Determination of N-vinylcarbazole in its polymer. Zhur. anal.  
khim. 18 no.5:654-656 My'63. (MIRA 17:2)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut monokristallov,  
stsintillicheskikh materialov i vysokochistykh khimicheskikh  
veshchestv, Kh~~er~~'kov.

BELOUS, G.G.; BEZUGLYY, V.D.

Polarographic determination of 1,3,4-triphenyl- $\Delta^2$ -pyrazoline in  
plastic scintillators. Zhur.anal.khim. 18 no.10:1250-1254 O  
'63. (MIRA 16:12)

1. Vsescouznyy nauchno-issledovatel'skiy institut monokristallov,  
stsintillyatsionnykh materialov i osobochistykh khimicheskikh  
veshchestv, Khar'kov.

ALEKSEYEVA, T.A.; KRUGLYAK, L.P.; BEZUGLYY, V.D.

Polarographic determination of styrene in polystyrene in the  
form of pseudonitrosite. Zav. lab. 29 no.6:657-659 '63.  
(MIRA 16:6)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut monokristallov.  
(Styrene) (Polarography)

BEZUGLYY, V.D.; PREOBRAZHENSKAYA, Ye.A.

Polarographic investigation of p-phenylbenzoic aldehyde. Zhur.  
ob.khim. 33 no.2:353-359 F '63. (MIRA 16:2)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut monokristallov,  
stsintil'yatsionnykh materialov i osobu chistiykh khimicheskikh  
veshchestv, g. Khar'kov.

(Benzaldehyde) (Polarography)

LAVRUSHIN, V.F.; BEZUGLYY, V.D.; BELOUS, G.G.

Polarographic study of unsaturated ketones. Part 1: Polarography  
of chalcone. Zhur.ob.khim. 33 no.6:1711-1717 Je '63.  
(MIRA 16:7)

1. Khar'kovskiy gosudarstvennyy universitet imeni A.M.Gor'kogo  
i Vsesoyuznyy nauchno-issledovatel'skiy institut monokristallov,  
stsintillographicheskikh materialov i osobu chistiykh khimicheskikh  
veshchestv, Khar'kov.  
(Chalcone) (Polarography)

L 13353-63

EWP(j)/EPF(c)/EWT(m)/BDS AFFTC/ASD FC-4/Pr-4 FM/WW  
S/0079/63/033/006/1726/1732

ACCESSION NR: AP3002622

AUTHOR: Shimanskaya, N. P.; Bezuglyy, V. D.

66

65

TITLE: Polarographic investigation of oxadiazole derivatives

SOURCE: Zhurnal obshchey khimii, v. 33, no. 6, 1963, 1726-1732

TOPIC TAGS: polarographic investigation, oxadiazole derivative, half-wave potential, polystyrene

ABSTRACT: The polarographic properties of oxadiazole derivatives such as phenyl, biphenyl, naphthyl and others used as luminescent additives in plastics were determined. It was found that substituents in the 2 and 5 positions influenced advantageously the reducibility of the oxadiazole ring. The polarographic data are compared with some optical properties. The half-wave potential values are tabulated. A correlation is found between the half-wave potential (diffusion and catalytic) and the scintillating effectiveness of the substances. On the basis of the polarographic data, the possible scintillating effectiveness of these substances can be determined. The polarographic properties are influenced by the effect of conjugation. Polystyrene was used as an experimental substance. Orig. art. has: 4 figures and 1 table.

Card 1/2

L 13353-63  
ACCESSION NR: AP3C02622

ASSOCIATION: Vsesoyuznyy nauchno-issledovatel'skiy institut monokristallov  
i osoboi chistykh khimicheskikh veshchestv, Kharkov (All-Union Scientific  
Research Institute of Monocrystals and Ultrapure Chemical Substances)

SUBMITTED: 29Jun62

DATE ACQ: 20Jul63

ENCL: 00

SUB CODE: 00

NO REF Sov: 004

OTHER: 009

Card 2/2

SHIMANSKAYA, N.P.; MALKES, L.Ya.; BEZUGLYY, V.D.

Polarographic method applied for the study of the thermal  
decomposition of azines. Zhur.ob.khim. 33 no.7:2094-2098 J1  
'63. (MIRA 16:8)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut monokristallov,  
stsintillographicheskikh materialov i osobu chistiykh khimicheskikh  
veshchestv, Khar'kov.  
(Azines) (Polarography)

BEZUGLYY, V.D.; ALEKSEYEVA, T.A.; DMITRIYEVSKAYA, L.I.; CHERNOBAY, A.V.;  
KRUGLYAK, L.P.

Application of the polarographic method for studying the  
kinetics of polymerization of 4-vinylbiphenyl and its  
derivatives and their copolymerization with styrene.  
Vysokom. soed. 6 no.1:125-130 Ja'64. (MIRA 17:5)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut monokristallov.

ACCESSION NR: APL032560

8/0190/64/006/004/0605/0607

AUTHORS: Besuglyny, V. D.; Saliychuk, Ye. K.

TITLE: Application of the polarographic method to the determination of the molecular weight of some polymers

SOURCE: Vysokomolek. soyedin., v. 6, no. 4, 1964, 605-607

TOPIC TAGS: polymer, polystyrene, polyvinyltoluene, polymethylmethacrylate, molecular weight determination, polarographic method, electrode, LP SSA light

ABSTRACT: Separate fractions of polystyrene, polyvinyltoluene, and polymethylmethacrylate were isolated, and their molecular weights were determined by the polarographic method. The determinations were conducted on a LP-55A mercury drop cathode polarograph. Two ml of a 0.1 molar solution of KI in a 1:3 benzene-methanol solution were placed in the electrolyzer, and its oxygen peak was recorded. To this solution were added 0.2 ml of a 0.04% solution of the polymer fraction, and the polarogram was obtained again. The polarographic peaks diminished with the molecular weight of the sample. Calibration curves were

Card 1/2

ACCESSION NR: AP4032560

prepared from the molecular weights of the same polymer fractions obtained by the standard viscosimetric techniques. It was found that the error of the polarographic method did not exceed 8.3%. It is imperative to avoid impurities if reproducible results are to be obtained. Orig. art. has: 2 charts and 1 table.

ASSOCIATION: Vsesoyuznyy nauchno-issledovatel'skiy institut monokristallov  
(All-Union Scientific Research Institute of Monocrystals)

SUBMITTED: 06Apr63

DATE ACQ: 11May64

ENCL: 00

SUB CODE: GC

NO REF Sov: 002

OTHER: 005

Card 2/2

L 25400-65 EWG(j)/EWT(m)/EPF(c)/EMP(j)/EWA(h)/EWA(l) Pe-l/Pr-l/Peb EM

ACCESSION NR: AP5002149

S/0120/64/000/006/0061/0062

24

AUTHOR: Grachev, N. M.; Bezuglyy, V. D.; Dykhanova, A. S.

6

TITLE: Plastic scintillators with a maximum light flash at 500 millimicrons  
based on polyvinyl-tetrahydronaphthalene

SOURCE: Pribory i tekhnika eksperimenta, no. 6, 1964, 61-62

TOPIC TAGS: plastic scintillator

ABSTRACT: Plastic scintillators based on 6-vinyl-1,2,3,4-tetrahydronaphthalene exhibited the highest light yield. The best results were obtained with long-wave luminescent additions to this compound. The best addition was found to be PPO. The use of this scintillator with long-wave photomultipliers is recommended. The processes for preparing 6-vinyl-1,2,3,4-tetrahydronaphthalene are described in detail. Orig. art. has: 1 formula and 1 table.

ASSOCIATION: Vsesoyuznyy nauchno-issledovatel'skiy institut monokristallov  
(All-Union Scientific-Research Institute of Single Crystals)

SUBMITTED: 05Oct63

ENCL: 00

SUB CODE: NP

NO REF SOV: 004

OTHER: 001

Card 1/1

ACCESSION NR: AP4043327

S/0191/64/000/008/0047/0049

AUTHOR: Bezugly\*y, V. D., Saliychuk, Ye. K.

TITLE: The use of a polarographic method to study the resistance of polymers to the action of solvents

SOURCE: Plasticheskiye massy\*, no. 8, 1964, 47-49

TOPIC TAGS: polymer, polymer solubility, polarography, polystyrene, polyvinyltoluene, polyvinylxylene, benzene, methanol, LP-55A polarograph, dropping mercury electrode, copolymer, polymer aging

ABSTRACT: In order to determine the solubility of polymers (polystyrene, polyvinyltoluene, polyvinylxylene) in solvent, polarographic investigations were carried out with the LP-55A polarograph using a dropping mercury cathode. The period of drop formation in the electrolyte was 3 seconds and the sensitivity was 1/500 of the total sensitivity of the galvanometer,  $\approx 2.7 \times 10^{-9}$  amp./mm. The electrolyte was 0.1 MKI solution in a chemically pure benzene-methanol (1:3) mixture. The change in the height of the polarographic maxima with the amount of polymer dissolved during periods varying from 12 hours to 10 days was plotted. The data obtained by the study of the rate of dissolution of polystyrene in benzene-methanol mixtures (35:65) by gravimetric and polarographic methods

Card 1/2

ACCESSION NR: AP4043327

are compared. The results show that during the dissolution of the polymer, the macromolecules passing into solution are adsorbed on the surface of the dropping mercury electrode and suppress the polarographic maxima. In benzene-methanol, all the samples were dissolved. The solubility of styrene-vinylcarbazole, vinylcarbazole-methylmethacrylate, and vinylcarbazole - methylmethacrylate-divinylbenzene copolymers was investigated in another benzene-methanol mixture (2):80). Because of the different molecular weight, polymer solubility cannot be correlated with the chemical structure, since solubility depends greatly on molecular weight. However, the method makes it possible to determine even the slightest solubility of polymers in a given solvent or solvent mixture. Therefore, this method can be used successfully for studying the most effective conditions of fractionation and precipitation of polymers, and the processes occurring in the sample during aging under the effect of irradiation. A slight decrease in the sample weight, almost undetectable by gravimetry, can be readily determined by the value of the polarographic maximum. Within certain limits, there is a linear relationship between polymer solubility and the degree of suppression of the polarographic maxima. Orig. art. has: 5 figures and 1 table.

ASSOCIATION: None

SUBMITTED: 00

ENCL: 00

SUB CODE: OC, MT  
Card 2/2

NO REF SOV: 007

OTHER: 001

ACCESSION NR: AP4042267

S/0089/64/017/001/0067/0070

AUTHOR: Bezugly\*y, V. D.; Nagornaya, L. L.

TITLE: Effect of irradiation on the stability of plastic scintillators

SOURCE: Atomnaya energiya, v. 17, no. 1, 1964, 67-70

TOPIC TAGS: plastic scintillator, plastic phosphor, organic phosphor, polymer phosphor system, polystyrene scintillator, poly(vinyltoluene) scintillator, poly(vinylxylene)scintillator, radiation stability, scintillation characteristic

ABSTRACT: The aging process in irradiated solid plastic scintillators has been studied with the purpose of selecting the most radiation-stable organic polymer-phosphor systems and of establishing the radiation-damage mechanism. Scintillation characteristics of two-component and three-component systems composed of a polymer and one or two phosphors were determined before and after  $\gamma$ -irradiation of the plastic scintillator samples in the K-1600 apparatus at the Institut fizicheskoy khimii AN USSR (Institute of Physical Chemistry, AN USSR). The

Card: 1/3

ACCESSION NR: AP4042267

radiation dose varied from  $5 \times 10^4$  to  $8 \times 10^6$  rad. It was established that in all systems studied, 1) the minimum  $\gamma$ -radiation dose which did not produce any significant change in scintillation characteristics was in the range from  $0.5 \times 10^5$  to  $10^5$  rad, and 2) the light yield decreased with increasing radiation dose. At equal radiation doses, the light yield of polystyrene-base scintillators recovered partially and that of poly(vinylxylene)-base scintillators, completely after aging in the air. The extremely important role of oxygen in the recovery of scintillation characteristics of irradiated samples was made clear by comparing their characteristics after aging in air and in vacuum. It was concluded that poly(vinylxylene)-base scintillators are the least susceptible to radiation damage in systems with identical phosphors, followed by poly(vinyltolene)- and polystyrene-base scintillators in that order. With equal radiation doses and identical polymer components, the most radiation-stable systems were those with 1, 2-aryl-ethylenes or paraterphenyl, and the least stable, those with heterocyclic (1,3-oxazoles) or  $\Delta^2$ -pyrazoline derivatives as phosphor components. The three-component systems with paraterphenyl as the basic phosphor and an ethylene derivative as the secondary phosphor were the most stable, owing to

ACCESSION NR: AP4042267

the increased efficiency of energy transfer from the polymer to the luminescent admixture. Orig. art. has: 6 tables and 3 figures.

ASSOCIATION: none

SUBMITTED: 02Sep63

ATD PRESS: 3084

ENCL: 00

SUB CODE: OP, MT

NO REF SOV: 004

OTHER: 003

Card 3/3

ACCESSION NR: AP4019510

S/0075/64/019/003/0389/0392

AUTHOR: Dnitriyeva, V. N.; Meshkova, O. V.; Bezugly\*y, V. D.

TITLE: Polarographic determination of dicyclohexylperhydroxydicarbonate

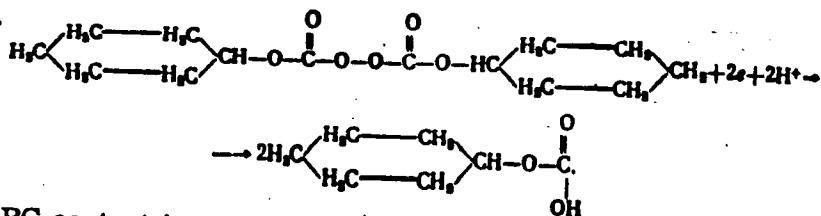
SOURCE: Zhurnal analiticheskoy khimii, v. 19, no. 3, 1964, 389-392

TOPIC TAGS: dicyclohexylperhydroxydicarbonate, polarography, determination, quantitative analysis, free radical polymerization initiator

ABSTRACT: The polarographic characteristics of dicyclohexylperhydroxydicarbonate (CPC), which is used as an initiator in free radical polymerization, have been established and a method was developed for the determination of CPC in polystyrene. The value of the diffusion current of CPC is a linear function of its concentration; the diffusion current constants have a constant value. The number of electrons involved in the electrode reaction is approximately two. The following is proposed as the equation showing the reduction of CPC:

Card 1/2

ACCESSION NR: AP4019510



The CPC content in polystyrene (ultimately dissolved in benzene-methanol solution of  $\text{NH}_4\text{NO}_3$ ) can be determined quantitatively by comparison with a calibrated graph of polarographic currents. For CPC concentrations of more than 0.2% the method is accurate within the error of the polarographic method; for smaller concentrations, it is less accurate. Orig. art. has: 2 tables, 2 figures and 1 equation.

ASSOCIATION: Vsesoyuznyy nauchno-issledovatel'skiy institut monokristallov, scintillatingkh materialov, i osobo chistykh khimicheskikh veshchestv, Khar'kov (All-Union Scientific Research Institute of Monocrystals, Scintillating Materials and Chemical Substances of Special Purity)

SUBMITTED: 29 May 63

SUB CODE: OC, GC

DATE ACQ: 31 Mar 64  
NO REF SOV: 008

ENCL: 00  
OTHER: 006

Card: 2/2

KHEYFETS, L.Ya.; PREOBRAZHENSKAYA, Ye.A.; BEZUGLYY, V.D.

Polarographic determination of two substances with close  
half-wave potentials when they are present together. Zhur.  
anal. khim. 19 no.5:607-609 '64. (MIRA 17:8)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut monokristallov,  
stsintillographicheskikh materialov i osobu chistykh khimicheskikh  
veshchestv, Khar'kov.

BEZUGLYY, V.D.; PONOMAREV, Yu.P.; DMITRIYEVA, V.N.

Separate determination of styrene and  $\alpha$ -methylstyrene by the  
polarographic method. Zhur. anal. khim. 19 no.7:881-889 '64.  
(MIRA 17:11)

1. All-Union Scientific-Research Institute of Monocrystals,  
Scintillating Materials and Highly Pure Chemical Substances,  
Kharkov.

L 14526-65 EWT(m)/EPF(c)/EWP(j)/T Pc-4/Pr-4 AFWL/SSD/ASD(m)-3 RM  
ACCESSION NR: AP5001431 S/0075/64/019/008/1033/1035

AUTHOR: Bezuglyy, V. D.; Preobrazhenskaya, Ye. A.; Dmitriyeva, V. N.

TITLE: Polarographic determination of tetraphenyltin in polystyrene and polyvinyl chloride

SOURCE: Zhurnal analiticheskoy khimii, v. 19, no. 8, 1964, 1033-1035

TOPIC TAGS: polarographic analysis, organotin compound, tin, polymer, polystyrene, polyvinyl chloride

Abstract: A method was developed for the quantitative determination of tetraphenyltin in polystyrene and polyvinyl chloride, based on the oxidation of the tin-containing polymer with a mixture of hydrogen peroxide, sulfuric and hydrochloric acids, followed by the polarography of quadrivalent tin. The accuracy of the determination of tetraphenyltin in tin-containing polystyrene was  $\pm 5 \cdot 10^{-3}$ , in polyvinyl chloride  $\pm 10^{-4}$ ; relative errors  $\pm 2.5\%$  and  $2.20\%$ , respectively. Orig. art. has: 2 tables.

Card 1/2

L 14526-65

ACCESSION NR: AP5001431

ASSOCIATION: Vsesoyuznyy nauchno-issledovatel'skiy institut monokristallov,  
stsintillyatsionnykh materialov i osobo chistiykh khimicheskikh veshchestv,  
Khar'kov (All-Union Scientific Research Institute of Single Crystals,  
Scintillation Materials, and Especially Pure Chemical Substances)

SUBMITTED: 10May63

ENCL: 00

SUB CODE: GC, OP

NO REF SOV: 003

OTHER: 007

JPRS

Card 2/2

SOBINE, N.A.; BEZUGLYY, V.D.

Polarographic determination of mesityl oxide in diacetone alcohol.  
Zav. lab. 30 no.10:1212-1213 '64. (MIRA 18:4)

1. Khar'kovskiy zavod khimicheskikh reaktivov i Vsesoyuznyy nauchno-issledovatel'skiy institut monokristallov, stsentrallyatsionnykh materialov i osobo chistykh khimicheskikh veshchestv.

ACCESSION NR: AP4014583

S/0079/64/034/001/0007/0013

AUTHORS: Lavrushin, V.F.; Bezugly\*y, V.D.; Belous, G.G.;  
Tishchenko, V.G.

TITLE: Polarographic studies of reactions between hydrazine  
derivatives and certain alpha-beta-unsaturated carboxylic  
compounds

SOURCE: Zhurnal obshchey khimii, v. 34, no. 1, 1964, 7-13

TOPIC TAGS: hydrazine derivative, phenylhydrazine, alpha-beta-  
unsaturated carboxylic compound, 1,3-diphenylpropenone, 1,3,5-tri-  
phenylpyrazoline, polarography, scintillator, luminescent additive,  
half-wave potential, reaction kinetics, activation energy, addition  
reaction, cyclization

ABSTRACT: The formation rate of 1,3,5-triphenylpyrazoline - $\Delta^2$   
during reaction of 1,3-diphenylpropenone with phenylhydrazine was  
studied under various temperature conditions, starting with obser-

Card 1/3

ACCESSION NR: AP4014583

vations on the behavior of the reaction product at the mercury drop cathode. The derivatives of this product are promising luminescent additives for the preparation of fluid and plastic scintillators. Polarographic determination was made against a background of a  $5 \times 10^{-2}$  M solution of  $(C_2H_5)_4NI$  in 92% methanol with reduced reaction time slowed by lowering the reaction temperature. The half-wave potential of the reaction product was -2.00 V, and the microcoulombimetric determination found a number close to 2 electrons participated in the reduction of one molecule. 1,3-diphenylpropenone formed 2 half waves of -1.26 and -1.80 V. These findings were used for quantitative determination of these compounds with the standard error of  $\pm 5\%$ . In studies of the reaction kinetics, reduction of the rate of synthesis at equimolar quantities of the reagents did not result in parallel reduction of 1,3-diphenylpropenone concentration. Reaction of 2 reagents was a second order reaction, and the synthesis reaction is a first order reaction. An excess of phenylhydrazine however led to a first-order reaction for both processes. The activating energies were 6 kcal/moles for the

Card 2/3

ACCESSION NR: AP4014583

addition reaction stage, 22 kcal/mole for the intermediate 1,3-diphenylpropenone hydrazone formation, and the cyclization was spontaneous. Orig. art. has: 5 figures, 1 table, 5 formulas.

ASSOCIATION: None

SUBMITTED: 19Jun62

DATE ACQ: 14Feb64

ENCL: 00

SUB CODE: CH

NO REF SOV: 003

OTHER: 011

Card 3/3

LAVRUSHIN, V.F.; BEZUGLYY, V.D.; BELOUS, G.G.

Polarographic investigation of unsaturated ketones. Part 2: Polarography of methoxy derivatives of chalcone, dibenzalacetone, and cinnamal-acetophenone. Zhur.ob.khim. 34 no.1:13-20 Ja '64. (MIRA 17:3)

BEMIGLYY, V.D.; DMITRIYEVA, V.N.; SHKODINA, I.A.; MEL'NIK, L.A.

Polarographic study of the series of 4-acetyl biphenyl derivatives.  
Zhur.ob.khim. 34 no.2:376-383 F '64. 'MIRA 17:3)

BEZUGLYY, V.D.; MEL'NIK, L.A.

Polarographic study of some derivatives of 4-acetyl biphenyl  
and 2-acetylfluorene. Zhur. ob.khim. 34 no.7:2103-2107 Jl '64  
(MIRA 17:8)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut monokristal-  
lov i osobx chistykh veshchestiv.

BEZUGLYY, V.D.; MEL'NIK, L.A.

Polarographic study of some methyl derivatives of acetophenone.  
Zhur. ob. khim. 34 no.8:2495-2499 Ag '64. (MIRA 17:9)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut monokristallov.

BEZUGLYY, V.D.; SHIMANSKAYA, N.P.; PERESLONI, Ye.M.

Mechanism of reduction of 1,3-oxazole and 1,3,4-oxadiazole derivatives. Zhur. ob. khim. 34 no.11:3540-3545 N '64  
(MIRA 18:1)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut monokristallov,  
Khar'kov.

L 31363-65 EWT(m)/EPF(c)/EWP(j)/T Pe-4/Pr-4 RM

ACCESSION NR: AP4048043

S/0020/64/158/006/1390/1392

AUTHOR: Bezugly\*y, V. D.; Saliychuk, Ye. K.

23

21

B

TITLE: Application of a polarographic method for determining the molecular weight of polyvinyl alcohol

SOURCE: AN SSSR. Doklady\*, v. 158, no. 6, 1964, 1390-1392

TOPIC TAGS: molecular weight determination, polarography, polyvinyl alcohol, polymer molecular weight determination

ABSTRACT: The extent to which the polarographic maximum was suppressed by polyvinyl alcohol (PVA) molecules of different size was examined using an LR-55A polarograph with a dropping mercury electrode with  $\text{CuSO}_4$  as the depolarizer. The magnitude of the change in height ( $\Delta h$ ) of the type I maximum (at -0.4 to -0.5 v) on the copper wave was almost independent of the decrease in PVA molecular weight since the PVA is adsorbed at more negative potentials. The  $\Delta h$  of the type II maximum (-0.8 to -1.7 v), i.e., the adsorption of the polymer

Cord/2

L 31363-65

ACCESSION NR: AP4048043 *2*

molecules, increased as the molecular weight of the PVA decreased. A  $\Delta h$  molecular weight curve was drawn which could be used as a calibration for molecular weight determination. Mixtures of different molecular weight fractions of PVA gave readings equivalent to their average molecular weight. The most sensitive adsorption region of each polymer can be determined by the proper combination of the type I and II maxima. The simplicity and the speed of this polarographic method for determining molecular weight of polymers were pointed out. "The authors sincerely thank L. N. Veselovskaya for supplying the individual fractions of PVA for the investigation." Orig. art. has: 1 table and 2 figures

ASSOCIATION: Vsesoyuzny\*y nauchno-issledovatel'skiy institut monokristallov, stsinillyatsionny\*kh materialoye i osobo chisty\*kh veshchestv Khar'kov  
(All Union Scientific Research Institute of Single Crystals, Scintillating Materials and Especially Pure Materials)

SUBMITTED: 15 May 64

ENCL: 00

SUB CODE: CC, NP

NR REF SOV: 005

OTHER: 004

Cord 2/2

BEZUGLYY, Vasiliy Danilovich; TOLMACHEV, V.N., dots., otv. red.;  
BAZILYANSKAYA, I.L., red.

[Polarography in chemistry and polymer technology] Po-  
liarografiia v khimii i tekhnologii polimerov. Khar'kov,  
Izd-vo Khar'kovskogo univ., 1964. 163 p. (MIRA 17:11)

L 34207-65 ENT(m)/EPF(c)/EMP(j)/EWA(c)/T  
ACCESSION NR: AP5005844

Pc-4/Pr-1 RM  
S/0075/65/020/002/0244/0248

AUTHOR: Bezuglyy, V.D.; Alekseyeva, T.A.

TITLE: Polarographic determination of 2-methyl-5-ethynylpyridine and 2-ethynylpyridine monomers

SOURCE: Zhurnal analiticheskoy khimii, v. 20, no. 2, 1965, 244-248

TOPIC TAGS: polarography, methylethynylpyridine, ethyaylpyridine, polymerization kinetics

ABSTRACT: The polarographic behavior of 2-methyl-5-ethynylpyridine and 2-ethynylpyridine was investigated in order to develop a technique for the quantitative determination of these compounds in reaction media in the course of polymerization. Both monomers are polarographically active; reduced in a supporting electrolyte of 0.02 N  $(C_2H_5)_4 NI$  in 92%  $CH_3OH$ , they form diffusion waves with  $E_{1/2} = -1.72$  V for 2-ethynylpyridine and  $E_{1/2} = -2.06$  V for 2-methyl-5-ethynylpyridine. On the basis of this behavior, a polarographic method was elaborated for determining the latter compound quantitatively. The method is applicable to the study of the polymerization of 2-methyl-5-ethynylpyridine. Orig. art. has: 5 figures and 3 tables.

Card 1/2

L 34207-65

ACCESSION NR: AP5005844

ASSOCIATION: Vsesoyuznyy nauchno-issledovatel'skiy institut monokristallov, stsin-  
tillyatsionnykh materialov i osobu chistiykh khimicheskikh veshchestv, Khar'kov  
(All-union scientific research institute of single crystals, scintillation materials and  
high-purity chemical substances)

SUBMITTED: 07Jan64

ENCL: 00

SUB CODE: OC

NO REF SOV: 005

OTHER: 002

Card 2/2

L 49025-65 EWT(m)/EPF(c)/EPR/EWP(j)/T/EVA(c) PC-L/Pr-L/Ps-L RPL WH/RN

ACCESSION NR: AP5011052

UR/0075/65/020/004/0505/0511

33  
30  
B

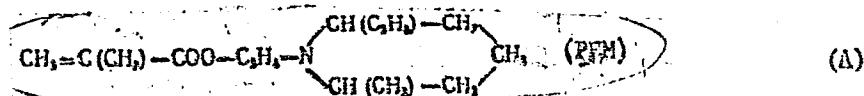
AUTHOR: Bezuglyy, V. D.; Ponomarev, Yu. P.

TITLE: Polarographic determination of certain monomers, amino derivatives of ethyl methacrylate in polymers and copolymers with N-vinylcarbazole

SOURCE: Zhurnal analiticheskoy khimii, v. 20, no. 4, 1965, 505-511

TOPIC TAGS: polarography, synthetic rubber, ethylmethacrylate, vinylcarbazole copolymer, polyethylmethacrylate, ethylaminoethylmethacrylate determination

ABSTRACT: The authors used the polarographic method to determine the content of residual monomeric derivatives of methacrylic acid: diethylaminoethyl methacrylate  $\text{CH}_2=\text{C}(\text{CH}_3)-\text{COO}-\text{C}_2\text{H}_4-\text{N}(\text{C}_2\text{H}_5)_2$  (EAM) and 1(2-ethyl-5-methylpiperidyl)ethyl methacrylate (PEM)



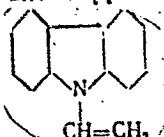
Card 1/3

L 49025-65

ACCESSION NR: AP5011052

3

in their polymers with 0.02 N  $(\text{CH}_3)_4\text{NI}$  in 92%  $\text{CH}_3\text{OH}$  as the supporting electrolyte and also to determine separately the residual EAM and N-vinylcarbazole



(B)

in the copolymer. In the later case, the supporting electrolyte used was 0.05 M  $(\text{C}_2\text{H}_5)_4\text{NI}$  in dimethylformamide. The polarographic measurements were made with an LR-55A photorecording Heyrovsky-type polarograph. The results of the polarographic investigation were used to elaborate methods for the quantitative determination of EAM and PEM. The mechanism of the electroreduction of EAM and PEM is discussed. "The authors thank N. A. Korshunov of the NII monomerov dlya sinteticheskogo kauchuka (NII of Monomers for Synthetic Rubber) in Yaroslavl' for making available the monomers." Orig. art. has: 6 figures and 6 tables.

ASSOCIATION: Vsesoyuznyy nauchno-issledovatel'skiy institut monokristallov, tsintillyatsionnykh materialov i osobo chistiykh khimicheskikh veshchestv, Khar'kov (All-Union Scientific Research Institute of Single Crystals, Scintillation Materials, and High-Purity Chemical Compounds)

Card

2/3

L 49025-65

ACCESSION NR: AP5011052

SUMMITTED: 07Mar64

ENCL: 00

SUB CODE: OC, OP

NO REF SOV: 007

OTHER: 005

Card 2/3

BEZUGLYY, V.D.; KOMAROV, P.I.

Polarographic behavior of some azinones. Part I. (V1-2) (V1-2)

17-22 Jan 1965.

BEZUGLYY, V.D.; ALEKSEYEVA, T.A.

Polarographic method of studying copolymerization of methyl acrylate with 2-methyl-5-vinylpiperidine. Ukr. khim. zhur. 31 no.4:392-397 '65. (MIRA 18:5)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut monokristallov.

BEZUGLYY, V.D.; LAVRUSHIN, V.F.; BELOUS, G.G.

Polarographic study of unsaturated ketones. Part 3: Structure and reactivity of aromatic  $\alpha$ ,  $\beta$ -unsaturated ketones. (Use of correlation equations). Zhur. ob. khim. 35 no.4:606-613 Ap '65.

(MIRA 18:5)

L 52124-65 EWE(j)/EWT(m)/EWP(j)/EWA(h)/EWA(l) PC-4/Peb RM

ACCESSION NR: AP5015280

UR/0286/65/000/009/0064/0064

AUTHORS: Grachev, N. M.; Dykhanova, A. S.; Gunder, O. A.; Bezuglyy, V. D.;  
Krasovitskiy, B. M.

34

B

TITLE: A method for obtaining film scintillators. / Class 39, No. 170650 15-

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 9, 1965, 64

TOPIC TAGS: scintillator, thermal stability, light emission, polymer, polymerization, tetramethylstyrene

ABSTRACT: This Author Certificate presents a method for obtaining film scintillators based on polystyrene. To increase the heat resistance and the light emission of a scintillator, a polymer obtained during the polymerization of 2,3,5,6-tetramethylstyrene is used as the styrene polymer.

ASSOCIATION: Vsesoyuznyy nauchno-issledovatel'skiy institut monokristallov  
(All-Union Scientific Research Institute of Single Crystals)

SUBMITTED: 22Apr63

ENCL: 00

SUB CODE: OC, OP

NO REF SOV: 000

OTHER: 000

Card 1/1 pub

BFZUGLYY, V.D., RAPOTA, T.M.

Polarography in nonaqueous solvents. Part 1. Zhur. fiz. khim.  
38 no. 9:2182-2189 S '64.  
(MIRA 17:12)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut monokristallov,  
Khar'kov.

REZULYY, V.O., MALYCHUK, Ye.K.

Use of the polarographic method for determining the molecular weight of polyvinyl alcohol. Dokl. AN SSSR 198 no. 6, 1971  
1392 O '64.  
(XER 17.12)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut monokristallov,  
svintillyatsionnykh materialov i osobo chistykh vesnocheatr,  
Khar'kov. Predstavleno akademikom V.A. Karginym.

LAVRENT'YEV, V.V., S. V. TIKHOMIROV, V.D., & BULAKOV, G.G. TISHCHENKO, V.G.

Tellurographic study of the reaction between  $\alpha,\beta$ -unsaturated carbonyl compounds and monosubstituted hydrazines. Part 2: quantitative study and phases of reaction between phenylhydrazine and substituted chalcones. Zhur. org. khim. 1 no.1298-101 Ja '65. (MIRA 18:5)

REUTER, V.P.; ALEXEVA, I.NA.; IL'IA BULGAKOV, I.A.

Determination of nucleanthraquinones in the presence of amino derivatives of anthraquinone by the polarographic method.  
Zhur. anal. khim. 20 no.6:733-738 '75. (USSR 1975)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut po kristallov, tsintilyatsionnykh materialov i osobym strukturnym veshchestv, Khar'kov.

BEZUGLYY, V.D., EFYLIS, Yu.I.

Polarographic determination of aromatic amines using a rotation platinum anode. Zhur. anal. khim. 20 no.9:1000-1006 '65.

(MIRA 18:9)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut monokristallov, stsentillyatsionnykh materialov i osobo chistiykh khimicheskikh veshchestv, Khar'kov.

KHEYFITS, L.YA.; PREOBRAZHENSKAYA, Ye.A.; BEZUGLYY, V.D.

Polarographic study of polycyclic aromatic ketones. Part 1;  
Polarography of benzanthrone in 70% methanol. Zhur. ob. khim.  
35 no.10:1703-1707 O '65. (MERA ISNLC)

L. Vsesoyuznyy nauchno-issledovatel'skiy institut monokristallov.

ALEXANDROV, V.P.; BEZUGLYY, V.D.; SFTVAK, L.L.; ORLOVA, N.N.

Electrochemical measurements in a methanol - benzene - water mixture.  
Zhur. fiz. khim. 39 no.7 1585-1589 Ju 1965.

(MIRA 18:8)  
D. Mav'jovskiy gosudarstvennyy universitet, Institut mono -  
kristallov.

BEN UGLYI, V.D.; DMITRIYeva, V.N.; SKVORTSOVA, I.V.

Use of polarographic technique in studying the reaction of  
aniline with benzaldehyde and its derivatives. Kin. i kat. 6  
no. 4737-740 Jl-Ag '65. (MIRA 18:9)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut monokristallov,  
Khar'kov.

BETUGLYY, V.D.; KORSHIKOV, I.A.

Electrocapillary phenomena in dimethylformamide. Part 1:  
Electrocapillary curves in inorganic salt solutions.  
Elektrokhimiia 1 no.12:1422-1428 D '65.

1. Vsesoyuznyy nauchno-issledovatel'skiy institut monokristallov,  
stsinteticheskikh materialov i osobu chistiyh khimicheskikh  
veshchestv. Submitted May 3, 1965.

(MIRA 1c:1)

BFTUGLYY, V.D.; RAHOTA, T.M.

Polarography in nonaqueous solvents. Part 2: Polarography of benzaldehyde and of some of its derivatives in ethanol and other alcohols. Elektrokhimiia 2 no.1:50-56 Ja '66.

(MIRA 19:1)

I. Vsesoyuznyy nauchno-issledovatel'skiy institut monokristallov, Khar'kov. Submitted March 30, 1965.

BEZUGLYY, V.D.; PONOMAREV, Yu.P.

Polarographic and acidimetric determination of N-vinylpyrrolidone  
by a mercury acetate method. Zhur. anal. khim. 20 no. 11:1231-1234  
'65 (MIRA 19:1)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut monokristallov,  
stsintillyatsionnykh materialov i osobu chistykh khimicheskikh  
veshchestv, Khar'kov. Submitted June 23, 1964.

BEZUGLYY, V.D.; ALEKSEYEVA, T.A.; KRUGLYAK, L.P.

Polarography of N-substituted acrylamides and methacrylamides.  
Ukr.khim.zhur. 31 no.5:500-505 '65.

(MIRA 18:12)  
I. Khar'kovskiy Vsesoyuznyy nauchno-issledovatel'skiy institut  
monokristallov. Submitted July 26, 1963.

L 24844-66 EWT(m)/EWP(j)/T/EWA(h)/EWA(l) IJP(c) RM  
ACC NR: AP6007833 SOURCE CODE: UR/0120/66/000/001/0186/0188

AUTHOR: Bezuglyy, V. D.; Zaplesnichenko, G. P.

33

B

ORG: VNII of Single Crystals, Kharkov (VNII monokristallov)

TITLE: Making plastic scintillators in the form of plates

SOURCE: Pribory i tekhnika eksperimenta, no. 1, 1966, 186-188

TOPIC TAGS: scintillator, styrene, polymerization

ABSTRACT: A new method for preparation of plastic scintillation plates is described. The proposed method has the following special features: 1. polymerization is done between two polished glass or metal sheets which gives the plates an extremely smooth surface without additional mechanical finishing; 2. instead of direct polymerization of the styrene monomer, the material is first brought to a definite viscous consistency (with a degree of conversion of styrene to polymer of 30-35%). This means more rapid polymerization without turbulent boiling. The authors give optimum conditions required in all stages of the technological process for production of flawless plates and also indicate the effect of various factors on the process. Measurements of the scintillation efficiency of the specimens produced by this method show somewhat better results (by 5-10%) than for scintillators produced by conventional methods. The new process may be used for producing plates of all sizes and thicknesses.

SUB CODE: 18,11/ SUBM DATE: 06Feb65/ ORIG REF: 003/ OTH REF: 001  
Card 1/1ddc UDC: 621.315.593.7

2

BEZUHOVIC, Danica, inz. (Beograd, Admirala Goprata 10/III)

Training of the 2d grade technical staff for chemical and allied  
industries. Tehnik Jug 19 no.6: Suppl: Nemindustrija 18 no.6: 1131-  
1133 Je '64.

1. Educational Consultant, Institute of Technical Education of Serbia,  
Belgrade.

МАЛКОВ, Г.Р. проф. доктор техн. наук; БОГИЧЕВСКАЯ, И.Н.  
ислб.

Сimplification of the construction of possible indices of the  
extracting and rejection of cues in saving systems. Sbor. науч.  
трудов. КГРД №.3 1957-65 №1  
(MIRA 17:8)

MALAKHOV, G.M.; VASHCHENKO, V.S.; KHIVRENKO, A.F.; VERESA, F.I.; BELEN'KIY,  
Ye.V.; PETRENKO, P.D.; BEZUKH, V.R.

Fundamental improvement in the technology of mining at the "Gigant"  
Mine. Gor.zhur. no.1:36-40 Ja '65. (MIRA 18:3)

BEZUKH, V.R.; PETRENKO, N.N.; KULAYAVTSEV, M.I.; RUDENKO, A.Y.

Shape of the outflow of loose materials. Sber. nauch. trud.  
KGRI no.23:36-39 '63  
(MIRA 17:8)

KIVIMÄKI, P. A.; HANH, V. R.; JÄTTÖVUO, J. O.

Tensometric dynamometer measuring rock pressure on the  
bottom of caving blocks. (Finnish. Publ. no. 234  
41-43 '63 (MIRA 1788))

BYEUKH, V.R.; RUDENKO, A.I.; KUDRYAVTSEV, M.I.

Investigation of ore block saving processes. Sber. nauch. trud.  
KGRI no.23: 43-52 '63  
(MIRA 17:8)

KOLTUNOV, M.A.; BEZUKHOV, V.N.

Analysis of creep of orthotropic glass plastics. Vest. Mosk.  
un. Ser. 1: Mat., mekh 18 no.6:64-70 N-D'63. (MIRA 17:2)

1. Kafedra teorii uprugosti Moskovskogo universiteta.

MALAKHOV, G.M., prof., doktor tekhn. nauky VASHCHENKO, V.S.,  
KHIVRENKO, A.F.; VERESA, F.I.; BELEN'KIY, Ye.V.;  
SHMALIY, V.Ya.; PETRENKO, P.D.; BEZUKH, V.R.; SHULIN,  
N.I.; RODIONOVA, N.P., ved. red.

[Technical progress at the "Gigant" Mine in the Krivoy  
Rog Basin] Tekhnicheskii progress na shakhte "Gigant"  
v Krivorezhskom basseine. Moskva, Nedra, 1964. 119 p.  
(MIRA 18:3)

1. Glavnnyy inzhener i nachal'nik shakhty "Gigant" v Krivo-  
rozhskom Basseyne (fer Vashchenko).

BEZUGLIY, V.P., kandidat meditsinskikh nauk (Kiyev)

Gas composition of the blood in Botkin's disease, Vrach.delo no.11:  
1139-1143 N '56. (MLRA 10:3)

1. Otdel funktsional'noy patologii (zaveduyushchiy - dotsent E.E.  
Krister) Ukrainskogo nauchno-issledovatel'skogo instituta kliniche-  
skoy meditsiny im. akademika N.D.Strazhesko.  
(HEPATITIS, INFECTIOUS) (BLOOD, GASES IN)

USSR/Pharmacology and Toxicology - Diuretics.

7-7

Abs Jour : Ref Zhur - Biol., № 14, 1953, 66381

Author : Berzglyy, V.P.

Inst : Ukrainian Scientific Research Institute of Clinical Medicine.

Title : The Effects of Mercusal on Gas Exchange in Circulatory Insufficiency.

Orig Pub : Materiały po obmenu nauchno. inform. Ukr. n.-i. inst klinich. meditsiny, 1957, vyp. 1, 161-164.

Abstract : No abstract.

Card 1/1

- 25 -

BEZUGLYY, V.P., starshiy nauchnyy sotrudnik (Kiyev)

Respiratory function of the blood in infectious hepatitis. Vrach.  
delo no.9:61-66 S '60. (MIRA 13:9)

1. Ukrainskiy nauchno-issledovatel'skiy institut klinicheskoy  
meditsiny im. akad. N.D. Strazhesko i Pervaya gorodskaya infektsionnaya  
bol'niitsa. (HEPATITIS, INFECTIOUS) (BLOOD)

BEZUGLYY, V.P.

Method for the investigation of gas exchange following the inhalation  
of large concentrations of oxygen. Lab. delo 6 no. 5:22-24 8-0 '60.  
(MIRA 13:9)

1. Ukrainskiy nauchno-issledovatel'skiy institut klinicheskoy  
meditsiny imeni akad. N.D. Strazhesko (dir. - zasluzhennyy deyatel'  
nauki pro. A.L. Mikhnev).  
(OXYGEN—THERAPEUTIC USE) (RESPIRATION)

BEZUGLYY, V.P.

Gaseous composition of the blood in the differential diagnosis  
of infectious and mechanical jaundice. Terap.arkh. no.6:28-34  
'62. (MIRA 15:9)

1. Iz Ukrainskogo nauchno-issledovatel'skogo instituta kliniche-  
skoy meditsiny imeni N.D. Starzheskogo (dir. - zasluzhennyy deyatel'  
nauki prof. A.L. Mikhnev).

(HEPATITIS, INFECTIOUS) (JAUNDICE)  
(BLOOD, GASES IN) (DIAGNOSIS, DIFFERENTIAL)

BEZUKH, M.S.

Clinical characteristics of the acute stage of cerebrocranial  
injuries in children. Vop.neirokhir. 24 no.4:40-41 Je-Ag '60.  
(MIRA 13:12)  
(BRAIN--WOUNDS AND INJURIES)

MALAKHOV, G.M., doktor tekhn.nauk; BEZUKH, V.R., inzh.; KUZ'MICH, S.N., inzh.;  
FEDORENKO, P.I., inzh.; IVANOV, Yu.A., inzh.

Effect of the depth of mining on the efficiency of the ~~chamber~~ system.  
Met. i gornorud. prom. no.3:39-42 My-Je '63. (MIRA 17:1)

1. Krivorozhskiy gornorudnyy institut.

BEZUKH, V.R., gornyy inzhener

Research on the method of roof caving and recovery of caved ore.  
Gor. zhur. no. 5:29-32 My '60. (MIRA 14:3)

1. Krivorozhskiy gornorudnyy institut.  
(Mining engineering)

MALAKHOV, G.M., prof.; BEZUKH, V.R., gornyy inzh.; PETRENKO, P.D., gornyy inzh.

Ore recovery under conditions of great rock pressure. Gor. zhur.  
no.1:33-36 Ja '62. (MIRA 15:7)

1. Krivorozhskiy gornorudnyy institut.  
(Krivoy Rog Basin--Iron mines and mining)  
(Rock pressure)

MALAKHOV, G.M., prof., dcktor tekhn.nauk; BEZUKH, V.R., gornyy inzh.;  
RUDENKO, A.I., gornyy inzh.

Ways of increasing the efficiency of the complete mining of  
untouched blocks of ore and interchamber pillars. Gor. zhur.  
no.9:20-24 S '63. (MIRA 16:10)

1. Krivorozhskiy gornorudnyy institut.

BEZUKH, V.R., inzh.; POLISHCHUK, A.K., inzh.

Distribution of ore losses in stoped-out areas. Met. i  
gornorud. prom. no. 5:46-48 S-0 '63. (MIRA 16:11)

1. Krivorozhskiy gornorudnyy institut.

ZHIGACH, A.F., doktor khimicheskikh nauk; POPOV, A.F., kand.tekhn.nauk;  
BEZUKH, Ye.P.

Continuous synthesis of triethyl-aluminum sesquichloride. Biul.tekh.-  
ekon.inform.Gos.nauch.i tekhn.inform. no.11:39-41 '62. (MIRA 15:11)  
(Aluminum, Triethyl)

ACC NR: AR0033145

SOURCE CODE: UR/0004/06/000/010/0020/0022

AUTHOR: Bezukh, Ye. P.; Zhigach, A. F.; Larikov, Ye. I.; Popov, A. F.

ORG: none

TITLE: Synthesis of methylaluminum sesquichloride and trimethylaluminum

SOURCE: Khimicheskaya promyshlennost', no. 10, 1966, 740-742

TOPIC TAGS: methylaluminum sesquioxide, trimethylaluminum, ~~explosives~~, CHEMICAL synthesis, propellant, ALUMINUM compound, CHLORIDE

ABSTRACT: Direct one-step preparative methods for methylaluminum sesquichloride (a mixture of  $\text{Al}(\text{CH}_3)_2\text{Cl}$  and  $\text{AlCH}_3\text{Cl}_2$ ) and trimethylaluminum are described. Methylaluminum sesquichloride was synthesized in a sealed reactor (Popov, A. F. and N. N. Korneyev, Author Certificate 168691, 1962, Byul. izobr, no. 5, 1965) from iodine-activated PA-4 aluminum powder or ASD-T aluminum powder and methyl chloride in cyclohexane solution at a 2/3/4.65 constant initial molar ratio. The optimum preparative conditions were determined (see Table 1) to be 50–70°C for 6–7 hr. The process was tested on a previously developed continuous reactor for ethylaluminum sesquioxide (Zhigach, A. F., A. F. Popov, and Ye. P. Bezukh, Byulleten' tekhn.-ekonom. informatsii, GOSINTI, v. 2, 1962, p. 39). Trimethylaluminum was synthesized as follows:  $2\text{Al} + 3\text{Mg} + 6\text{CH}_3\text{Cl} \rightarrow 2\text{Al}(\text{CH}_3)_3 + 3\text{MgCl}_2$  from AST-D aluminum powder PMF-4 magnesium

Card 1/3

UDC: 547.256.2

Q2005137

ACC NR: AR6033145

Table 1. Effect of  
temperature and reaction time on the methylaluminum  
sesquioxide yield and reaction rate

Reaction time min	Reac- tion temper- ature, °C	Composition of the reaction products, %		Overall yield of reactions based on Al, %	Average reaction rate, mol/g-atom- hr <sup>1</sup>
		AlMe <sub>2</sub> Cl C <sub>2</sub>	AlCl <sub>3</sub>		
ACD-T aluminum powder					
20	30	51.2	48.7	15.9	0.001
20	50	54.2	45.8	65.5	0.016
20	60	54.8	45.2	99.0	0.0217
20	70	54.8	45.1	99.1	0.0246
20	90	50.0	50.0	99.5	0.0248
20	110	46.0	54.0	95.0	0.0238
20	130	29.0	71.0	65.0	0.0163
20	140	10.0	90.0	45.0	0.0113
20	150	8.0	92.0	22.0	0.0035
2.5	55	48.0	52.0	39.2	0.078
5	55	48.9	51.1	76.5	0.046
6	55	50.4	49.6	97.3	0.081
10	55	50.0	50.0	99.0	0.046
15	55	50.5	49.5	98.1	0.033
20	55	49.8	50.2	98.0	0.024
PA-4 aluminum powder					
10	70	52.30	47.70	71.0	0.071
5	70	57.00	43.00	88.0	0.062
7	70	56.44	43.56	89.0	0.044

Card 2/3

L02935-67  
ACC NR: AR6033145

and methyl chloride in cyclohexane solution at a constant 2/3/6/3 initial molar ratio. The optimum preparative conditions were determined (see Table 2) to be 120C for 5 hr.

Temperature, °C	Composition of the reaction products		Overall yield of reaction products based on Al, %	Average reaction rate, mol/(g- atom-hr)
	Al(CH <sub>3</sub> ) <sub>3</sub>	Al(CH <sub>3</sub> ) <sub>2</sub> Cl		
100	68,6	31,4	83,2	0,167
105	67,8	32,2	86,5	0,173
120	72,7	27,3	97,5	0,195
130	69,5	30,5	85,0	0,170
150	65,8	34,2	47,3	0,095

The drop of Al(CH<sub>3</sub>)<sub>3</sub> yield and reaction rate at higher temperatures was explained as its thermal decomposition catalyzed by titanium contaminating the aluminum. Orig. art. has: 2 tables.

SUB CODE: 07, 19/ SUBM DATE: none/ ORIG REF: 006/ OTH REF: 030/ ATD PRESS: 5099

Card 3/3 awm

DIMITROV, Kh.; SIMOVA, P.; PETSEV, N.; BEZUKHANOVA, TS.; SAVATINOVA, I.

Chemical composition of the Dolni Dubnik petroleum. Doklady BAN  
17 no.3:255-258 '64.

1. Chair of Organic Chemistry, University of Sofia, and Institute  
of Physics and Atomic Scientific Experiment Station, Bulgarian  
Academy of Sciences. Submitted by Academician D.Ivanov.

L 42998-66 EWT(J)/T WE/RM  
ACC NR: AP6031807 SOURCE CODE: BU/0011/65/018/009/0841/0844  
AUTHOR: Dimitrov, Khr.; Bezukhanova, Ts.; Dimitrova, P. 35  
ORG: Department of Organic Chemistry, Sofia University B  
TITLE: Catalytic conversion of p-di-n-propylbenzene on aluminosilicate catalyst  
SOURCE: Bulgarska akademiya na naukite. Doklady, v. 18, no. 9, 1965, 841-844  
TOPIC TAGS: aluminum silicate, reaction temperature, benzene, benzene catalytic cracking  
ABSTRACT: Dialkylbenzenes in contact with aluminosilicate catalysts at increased temperatures (400-500°C) and atmospheric pressure undergo various transformations which lead to valuable products. Present article reports in details the results of the catalytic conversion of p-di-n-propylbenzene at 450°C in presence of Gudri-type aluminosilicate catalyst. The resulting fractions are compared with those obtained by Kazanskiy and his co-workers (V. A. Kazanskiy, Kh. D. Georgiyev, Dokl. AN SSSR, 116, 1957, No. 1, 85; Izv. AN SSSR, Otd. khim. n., 1959, No. 3, 491) during the cracking of p-disopropylbenzene and n-propylbenzene. This paper was presented by Academician D. Ivanov on 1 June 1965. The authors thank the workers of IOKh, BAN, B. Yordanova and I. Yukhnovskiy for assistance in the carrying out the spectrum analysis in this work. Orig. art. has: 3 figures and 2 tables. [JPRS: 34,518]  
SUB CODE: 07 / SUBM DATE: 01Jun65 / ORIG REF: 002 / SOV REF: 006  
OTH REF: 003  
Card 1/1 20 0919 0 554

KHAIMOVA, M.A.; KURTEV, B.Y.; BEZUKHANOVA, TS.P.

Production and reactivity of certain arylated  $\beta$ -iodo ethers.  
Dokl. AN SSSR 143 no.6:1374-1377 Ap '62. (MIRA 15:4)

1. Kafedra organicheskoy khimii Sofiyskogo gosudarstvennogo  
universiteta, Sofiya, Bolgariya. Predstavлено академиком  
B.A.Kazanskim.

(Ethers) (Iodine compounds)

KHAIMOVA, M.A.; KURTEV, B.I.; BEZUKHANOVA, Ts.P.

Preparation and rearrangement of pinacolin type, and reactivity  
of certain arylated  $\beta$ -iodoethers. Godishnik khim 55 no.3:67-86  
'60/61 (publ.'62).

ACC NR: AP6032299

(A)

SOURCE CODE: UR/0226/66/000/009/0055/0060

AUTHOR: Artamonov, A. Ya.; Bezukor~~nov~~, A. I.; Ivanov, A. N.ORG: Institute of Problems in the Science of Materials, Academy of Sciences, UkrSSR  
(Institut problem materialovedenya, AN UkrSSR)

TITLE: Investigation of the abrasive capacity of refractory compounds

SOURCE: Poroskovaya metallurgiya, no. 9, 1966, 55-60

TOPIC TAGS: refractory carbide, refractory boride, refractory compound, ~~refractory compound~~ abrasive capacity, tungsten boride, tungsten compound, boride, abrasiveness

ABSTRACT: Several refractory compounds, such as borides of zirconium, titanium, molybdenum, chromium, and carbides of boron, titanium and zirconium, have been tested for abrasive capacity and improved methods of evaluating the abrasive capacity have been developed. It was found that some refractory compounds possess higher abrasive capacities than some of the conventional abrasives. For instance, the abrasive capacity of tungsten boride (0.233) is higher than that of synthetic corundum and tungsten boride (and some other compounds) does not react chemically with titanium or its alloys. Orig. art. has: 3 figures and 2 tables. [TD]

SUB CODE: 11/ SUBM DATE: 09Mar66/ ORIG REF: 009/ OTH REF: 001

Card 1/1

BEZUNOVIC-GLAVINIC, D.

Our chemical schools and cadres. p. 1063. TENHKA (Savaz inzenjeri  
i tehnika Jugoslavije) Beograd. Vol. 11, no. 7, 1956.

SOURCE: East European Accession List (EE/L),  
Library of Congress, Vol. 5, no. 11, Nov. 1956

BEZUKHOV, K. I.

Fundamenty metallorezhushchikh stankov. Sverdlovsk, Mashgiz, 1947. 115 p. diagrs.

Cty            DLC: TJ1230.B43

(Foundations of metal-cutting machines.)

SO: Manufacturing and Mechanical Engineering in the Soviet Union, Library of Congress, 1953.

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Concrete Construction

Testing of short reinforced concrete brackets  
Vest. inzh.i tekhn., no. 3, 1948

SEZUMKHOV, K. I.

21660 SEZUMKHOV, K. I. Gasheniy<sup>e</sup> vibratsii izgibayemykh konstruktsiy.  
Sbornik statey po obshchetekhn. voprosam (Trudy Ural'skogo  
lesotekhn. in-ta). Sverdlovsk, 1949, s. 40-55.

SO: Letopis' Zhurnal'nykh Statey, No. 29, Moskva, 1949

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?1661      BEZUKHOV, K. I. Osobennosti deformatsiy uprugogo izliba  
korotkoy konsal'. Sbornik statey po obshchetekhn. vo resam  
(Trudy Ural'skogo lesotekhn. in-ta). Sverlovsk, 1949, s.93-122.

SO: Letopis' Zhurnal'nykh Statey, No. 29, Moskva, 1949

BEZUKHOV, Konstantin Ivanovich; ROSTOVTSEVA, M.P., redaktor; SMOL'YAKOVA, M.V., tekhnicheskiy redaktor.

[Testing construction elements and structures] Ispytanie stroitel'nykh konstruktsii i sooruzhenii. Izd. 3-e, perer. i dop. Moskva, Gos. izd-vo lit-ry po stroit. i arkhitekture, 1954. 507 p. [Microfilm]  
(MLRA 8:2)

(Engineering instruments) (Non-destructive testing)  
(Structural frames)

BEZINOV, N.I.

BEZINOV, N. I.

Vvedenie v teoriyu upravostsi i plastichnosti. Moskva, Gos. izd-vo  
stroit. lit-r., 1950. 247 p., diagrs.

Bibliography: p. 245. : *Dr. Engineering*

Title tr.: Introduction to the theory of elasticity and plasticity.

QA931.B45

SO: Aeronautical Sciences and Aviation in the Soviet Union, Library of  
Congress, 1955.

BEZUKHOV, N. I.  
PHASE I

## TREASURE ISLAND BIBLIOGRAPHICAL REPORT

AID 207-I

## BOOK

Call No. AF589976

Author: BEZUKHOV, N.I.

Full Title: THEORY OF ELASTICITY AND PLASTICITY

Transliterated Title: Teoriya uprugosti i plastichnosti

## Publishing Data

Originating Agency: None

Publishing House: State Publishing House of Technical Theoretical Literature.

Date: 1953

No. pp: 420

No. of copies: 15,000

## Editorial Staff

Editor: None

Tech. Ed.: None

Editor-in-Chief: None

Appraiser: None

## Text Data

Coverage: The subjects discussed in the book are considerably enlarged as compared with the first book of the same author: Introduction to the Theory of Elasticity and Plasticity. The author introduces the theory of elasticity and associated sciences with designated mathematical approach to different problems on the same subjects. Simple and classical problems on the theory of elasticity and plasticity are discussed, including semi-plain, semi-space, elastic torsion, and many other applied problems related to structural mechanics.

1/2

24001

Teoriya uprugosti i plastichnosti

AID 207-I

The author presents the theories of elasticity and plasticity in a very compact form applicable to the solution of many practical problems in a manner slightly different from that given in American literature.

Purpose: A textbook, approved by the Ministry of Higher Education for students at technical colleges.

Facilities: The following outstanding scientists in the field of the mechanics of the deformation of bodies are mentioned: Academicians B.G. Galerkin, L.S. Leybenzon, N.I. Muskhelishvili, and Corr. Member, Academy of Sciences, Prof. P.F. Papkovich on the theory of elasticity; Corr. Members, Academy of Sciences, Prof. A.A. Il'yushin and Prof. V.V. Sokolovskiy and Member, Academy of Sciences, Uzbek SSR, Prof. Kh.A. Rakhmatulin on questions of the theory of plasticity; Prof. V.Z. Vlasov and Prof. S.G. Lekhnitskiy on special questions of the theory of elasticity. The textbooks and monographs of Prof. M.M. Filonenko-Borodich, Member, Academy of Sciences, Ukrainian SSR, of Prof. S.V. Serensen, Member, Academy of Sciences, and of many others are cited as having created interest in this field.

No. of Russian and Slavic References: 136 (1933-1950)

Available: AID, Library of Congress

*BEZUKHOV N.I.*

RABINOVICH, Isaak Moiseyevich, doktor tekhnicheskikh nauk, professor;  
BEZUKHOV, N.I., professor, doktor tekhnicheskikh nauk, retsenzent;  
~~KISILEV, V.I.~~, professor, doktor tekhnicheskikh nauk, retsenzent.  
SHITKO, I.K., kandidat tekhnicheskikh nauk, nauchnyy redaktor;  
TUMARKIN, D.M., redaktor; SMOL'YAKOVA, M.V., tekhnicheskiy redaktor.

[Course in the structural mechanics of bar systems] Kurs stroitel'-noi mekhaniki sterzhnevyykh sistem. Part 2. [Statically indeterminate systems] Staticheski neopredelimye sistemy. Issd. 2-e, perer. Moskva, Gos. issd-vo lit-ry po stroitel'stvu i arkhitekture. 1954. 543 p. (MLRA 7:11)

1. Chlen-korrespondent Akademii Nauk SSSR (for Rabinovich)  
(Structures, Theory of)

NIKIFOROV, Sergey Nikolayevich, professor, doktor tekhnicheskikh nauk  
IL'YUSHIN, A.A., professor, doktor fiziko-matematicheskikh nauk  
retsenzent; BEZUKHOV, N.I., professor, doktor tekhnicheskikh  
nauk, retsenzent; AFANAS'YEV, A.M., kandidat tekhnicheskikh  
nauk, redaktor; TUMARKIN, D.M., inzhener, redaktor; MEDVEDEV,  
L.Ya., tekhnicheskiy redaktor; VOLKOV, V.S., tekhnicheskiy redaktor.

[Theory of elasticity and plasticity] Teoriia uprugosti i plastichnosti. Moskva, Gos.izd-vo lit-ry po stroitel'stvu i arkhitekture, 1955. 284 p.  
(MLRA 8:12)

1. Chlen-korrespondent AN SSSR (for Il'yushin)  
(Elasticity) (Plasticity)

PHASE I BOOK EXPLOITATION 806

Bezukhov, Nikolay Ivanovich

Sbornik zadach po teorii uprugosti i plastichnosti (Collection of Problems on the Theory of Elasticity and Plasticity) Moscow, Gostekhizdat, 1957. 286 p. 13,000 copies printed.

Ed.: Snitko, I.K.; Tech. Ed.: Yermakova, Ye.A.

PURPOSE: This collection of problems is approved by the Ministry of Higher Education of the USSR as a textbook for vtuzes. It may also be useful to students wishing to check their theoretical knowledge and to train themselves in the solution of practical engineering problems, and to teachers in the preparation of practical classwork and in the selection of homework problems for their students.

COVERAGE: The book consists of a collection of problems compiled in conformity with the program of courses on the theory of elasticity for vtuzes. It also contains some problems which do not belong to the above category, but which may be useful for a more specialized study. The collection includes problems from various fields of engineering practice, such as construction and mechanics. For standardization of conventional symbols and for the convenience of the user, each chapter contains some theoretical information and the more important

Card 1/5

## Collection of Problems on the Theory of (Cont.)

806

formulas. The author thanks L.M. Kachanov and V.V. Sokolovskiy for aid in preparing the book. There are 78 Soviet references.

## TABLE OF CONTENTS:

Preface	5
Designations of values often encountered	7
Ch. I. Basic Equations of Continuous-Medium Mechanics	11
Brief information on theory	15
1. Formulation of boundary conditions	22
2. Investigation of stressed condition in a point	30
3. Investigation of strains in the vicinity of a given point	31
4. Use of differential equations of equilibrium (simple case)	38
5. Use of geometric equations	
6. Evaluation of elementary solutions of problems of strength of materials from the point of view of the equations of con- tinuous-medium mechanics	43

Card 2/5

## Collection of Problems on the Theory of (Cont.) 806

## Ch. II. Theory of Elasticity

Brief information on theory	50
1. Physical conditions in the vicinity of a given point	56
2. General problems. Some features of elastic displacements, strains and stresses	60
3. Two-dimensional problem of elasticity theory in rectangular coordinates	64
4. Two-dimensional problem of elasticity theory in polar coordinates	74
5. Axially symmetrical and polar symmetrical strains	87
6. Elastic half-space. Contact problems	104
7. Torsion of bars	112
8. Bending of bars	121
9. Thermal stresses	125
10. Initial stresses	127

## Ch. III. Approximate Solutions in Elasticity Theory

Brief information on theory	131
1. Rectangular plates of an average thickness (static transverse bending)	136
2. Circular plates (polar-symmetric bending)	147

Card 3/5